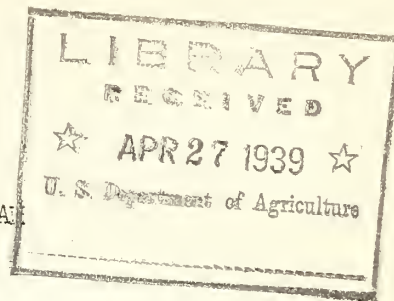


## **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.



54892 Rec  
UNIVERSITY OF MISSOURI  
LAND GRANT COLLEGE SERIES  
NATIONAL FARM AND HOME PROGRAM  
February 15, 1939



ON CUE: ANNOUNCER:

The National Farm and Home Hour.

BAND:

I'M A SON OF OLD MISSOURI.

ANNOUNCER:

"I'm A Son of Old Missouri"----that was the number you just heard, played by the University of Missouri Cadet Band---- and it serves to introduce another program in the series of broadcasts on the National Farm and Home Hour, presented from Land Grant Colleges. Today, we're visiting the University of Missouri, at Columbia, Missouri.

Missouri's Land Grant College is part of its great state university, which has an enrollment of some five thousand students, studying the arts and sciences, agriculture, medicine, law, journalism, business and public administration, engineering, mines and metallurgy.

I'm sure you'd like to meet the president of this great Middle Western University----Dr. Frederick A. Middlebush.

PRESIDENT MIDDLEBUSH:

May I extend greetings to each and every one of you from the University of Missouri, the oldest state university west of the Mississippi, and also an invitation to visit our Campus during this our Centennial Year.

Only last night the University of Missouri held its Founders' Day Centennial Celebration, the first of a series of Centennial ceremonies, which will continue at intervals throughout the present year. This University was established by Missouri's Tenth General Assembly in February, 1839.

The theme of this broadcast, "Conservation of Missouri's Resources," is very much in keeping with the needs of our time and, I am glad to say, directly in line with our ideals of service to the people of this state. Very briefly, in the next few minutes, you will hear how the people of Missouri are accepting the challenge of this great modern movement.

Since progress in any field of human endeavor depends very largely on scientific research, sound teaching, and wide dissemination of the practical applications of research, it is obvious that every Division of the University has a part in the work of conservation. Special opportunities are enjoyed, however, by the College of Agriculture, which has been a pioneer in this field, the School of Medicine, the School of Engineering, and the departments of botany and zoology in the College of Arts and Science.

(over)

As you listen to the brief stories soon to follow you will discover that Missouri people are very much in earnest in their efforts to restore their natural heritage of soil and other outdoor wealth. The state is credited by national leaders with having established one of the most satisfactory state conservation organizations in the fall of 1936, when our bi-partisan State Conservation Commission was created by constitutional amendment.

There followed important recognition by the Federal Government, resulting in the construction of a wildlife conservation building at the University, the purchase of 2000 acres of marginal land as a wildlife and arboretum experimental area, and the establishment of a wildlife research unit in cooperation with the Bureau of Biological Survey and the State Conservation Commission.

Even more recently, through the generosity of a public spirited conservationist, Edward K. Love of St. Louis, a \$100,000 foundation for wildlife conservation in Missouri has been established. Some of the income is to be used for several important research fellowships and undergraduate scholarships at the University.

Our most unique services to the cause of conservation, it seems to me, are those performed in the School of Medicine by Dr. Max M. Ellis and his associates in cooperation with the U. S. Bureau of Fisheries. This laboratory, now in its 15th year, is the only one of its kind in the United States. Working in all parts of the country, these investigators are studying various types of stream pollution and their effects on aquatic life and, through these lower forms, their ultimate relation to human health and well being. Publications dealing with the findings in this laboratory have not only been accepted as leading authority in the United States, but have also been translated into German and are being used throughout Central Europe, and they are now being translated into Spanish and Portuguese for dissemination in Central and South America.

These are but a few instances of the many lines of research carried on by the University, each contributing to a better knowledge of our material resources and wiser methods of utilizing them for the benefit of mankind.

Other members of the University staff have many other interesting things to report. In all accomplishments that may be mentioned we gratefully acknowledge the indispensable assistance of the many Federal and State agencies, county and community organizations, and thousands of efficient local leaders, who through their cooperation have made possible much of the work now being carried on here at the University of Missouri.

I thank you.

ANNOUNCER:

You have just heard President Middlebush of the University of Missouri opening the Land Grant College Broadcast on "Conservation of Missouri's Resources."

MUSIC:

University String Quartet. Playing the Finale of Hayden's Opus 76, No. 5 in D. Major.

ANNOUNCER:

In this business of conservation, the soil---or its rapid disappearance down the rivers---seems to be at the bottom of the problem. I should like to call on Dr. Wm. A. Albrecht, chairman of the department of soils. Dr. Albrecht---from what I've heard, I should judge that Missouri, like many other states, has lost much of its best soil. Is that correct?

ALBRECHT:

Yes, that's true, despite the fact that the college of agriculture has been in existence for 69 years.

ANNOUNCER:

And the college has been teaching soil conservation most of that time?

ALBRECHT:

Yes---in one form or another. But before you censure either the farmer or the teacher, please remember that farmers usually do those things which seem best under existing circumstances. Their plans are often upset and their farming systems overthrown by forces over which they have no control. For instance---The World War ---

BAND: OVER THERE: FEW BARS: FADE TO BACKGROUND.

NEWSBOY: (FADE IN) Extra! Extra! United States Enters War! Extra!  
(FADE OUT) Extra!

MINUTE MAN:

Food will win the war! Plant more wheat! Plow up more land!  
Food will win the war!

BAND: OVER THERE: SWELLS FOR FEW BARS AND FADES AGAIN.

FARMER:

Sure! I can grow more wheat. All I've got to do is plow up some of my pasture and hay land. I can grow twice as much wheat as I ever did before.

WOMAN'S VOICE:

But your hilly land should stay in grass; heavy rains will wash away the soil and ruin your fields.

FARMER:

Sure---I know we have lots of rain in Missouri and it's bad for hill land to be plowed up --- but we need more wheat for our boys in France and for the Allies. Food will win the war!

BAND: UP THEN FADING DOWN AND OUT.

ALBRECHT:

And so---during the war, farmers changed their systems of farming, plowed up their meadows, and abandoned many of the practices which help to conserve the soil.

But in the same year that America entered the war, two scientists here at the Missouri Agricultural Experiment Station laid out the first experiment for accurately measuring the amount of runoff and erosion from land. One of these men was Professor M. F. Miller, who is now dean and director of the College of Agriculture; the other was F. L. Duley.

ANNOUNCER:

We'll want to meet Dean Miller in just a few minutes.

ALBRECHT:

Of course you will---but here's the point of my statement; you're familiar with the soil conservation program which is being carried out all over the country today, I'm sure.

ANNOUNCER:

Yes--I think we've all heard a great deal about it.

ALBRECHT:

Well--many of the principles underlying this nationwide program to save the soil are based on the studies made by Dean Miller and Mr. Duley.

At the same time they were doing their work, the crops men were testing new crops and cropping systems that would let farmers keep their soil covered the year around, to check the destructive rush of run-off waters. Some of our men discovered that if our farmers were to grow legumes, the soil must have more calcium. And then they found that lime and phosphate fertilizer work together in the most astonishing way, producing much more improvement when used together than the total of their separate results.

ANNOUNCER:

That sounds like a case of adding two and two--and getting five.

ALBRECHT:

That's a good way to express it Mr. Mitchell, for it works out that way in the growth of crops.

Thus the investigators have developed a better knowledge of Missouri's soils and methods of soil management -- ever since the turn of the present century when Curtis F. Marbut, geologist of the University and later a world authority on soils, made the beginning of the Missouri soil survey.

But that is an endless story....just as the story of honest scientific research always is endless in its effects on human well being. But it is even more interesting to see what the people of Missouri are doing with these scientific methods. Suppose we ask O. T. Coleman, soils extension specialist, to give us the latest reports. How about it Mr. Coleman?



COLEMAN:

It's always a privilege to tell what the farm people of Missouri are doing. This winter, for the fifteenth straight year, farmers are holding county soils and crops conferences-- in all of Missouri's 114 counties. Missouri is really in earnest about soil conservation.

Take, for instance, recent rapid increases in the acreage of legumes, the soil-covering, nitrogen-gathering crops which the College and farm leaders have been recommending. Their acreage in 1938 was the largest ever grown in Missouri.

Korean lespedeza, the summer pasture legume, which even in 1937 was sweeping over the state, almost doubled its acreage last year, reaching a new high mark of two and three-fourths million acres! The story of this legume is one to fill the heart with hope. Here's the story:

GONG:

FIRST VOICE:

The Year 1921! A 2-ounce packet of seeds of a plant from far-off Korea is received from the U. S. Department of Agriculture by the Missouri Agricultural Experiment Station...for field trials and selective improvement.

GONG:

SECOND VOICE:

The Year 1927! The Experiment Station sends 5-pound lots of seed of improved strain to thirty Missouri farmers for trial and use.

GONG:

THIRD VOICE:

The Year 1938! A revolutionary new pasture, hay, and soil-building crop -- drought resistant, reseeding itself annually, able to grow on depleted soils, useful to wildlife -- now covers nearly three million acres of farmland in Missouri.

COLEMAN:

Thus a handful of seed from the other side of the world was found useful by the Experiment Station and promoted by the Extension Service to a commanding place in soil conservation in 17 years.

ANNOUNCER:

That's great! I guess farmers know a good thing when they see it.

COLEMAN:

Yes, they do....especially if it bears the stamp of their experiment station and is demonstrated in their own communities by the extension service.

That's why Missouri farmers last year plowed into their soil the largest tonnage of ground limestone, high-grade fertilizer, and green manure crops ever used in the state in a single year.

That's why they are rapidly terracing their sloping fields, building grassed outlets for the terraces, putting soil saving dams in the gullies, and planting their row crops in level rows---around the slopes instead of up-hill and down.

ANNOUNCER:

That's great!

COLEMAN:

Yes, and besides that, our farmers are helping tell this story to the boys and girls in 4-H clubs. These youngsters....several thousand of them each year...are studying soil conservation not only on their home farms but with test tubes, soil samples and reagents, learning just why it is, that the soil, too, must be fed and guarded carefully as the very basis of farm life.

ANNOUNCER:

A most interesting story, Mr. Coleman. The Soil Conservation activities in Missouri were outlined by Mr. O. T. Coleman. And now the University Men's Glee Club directed by Mr. Mark W. Bills will sing, Blow Trumpets Blow, by James.

THE GLEE CLUB: Blow Trumpets Blow.

ANNOUNCER:

Now these newer activities of the University -- in wildlife conservation -- that President Middlebush mentioned a moment ago. Let's hear what sort of service the University is rendering to people who love the great outdoors -- and that includes most of us, doesn't it?

For this purpose I am bringing to the microphone Dr. C. M. Tucker, head of the Department of botany at the University and Chairman of the University Wildlife Council. Dr. Tucker.

TUCKER:

It's a pleasure to accept this invitation, but I have brought along my friend Bob Hill, an ardent outdoor man, and I shall depend on him to pick out the high spots in the conservation program. Bob, just what is it that the public wants to know about this work?

HILL:

That's a big order, Dr. Tucker. After all, I'm only one of five hundred thousand men in Missouri who like to hunt and fish. Even the five hundred thousand are but a fraction of the state's population. What I want to know is: How are we going to keep the general public interested?

TUCKER:

You know, Bob, that's a good question. And the answer is: Only by giving them actual benefits. The experience of other states, where wild-life has been restored through scientific management, shows that there are benefits for all.



To the sportsman, conservation means more game and fish. To outdoor people generally it means richer enjoyment of the outdoors.

To the farmer it means more fur to trap and sell, more valuable allies in the war against insect and rodent pests, and more good hunting and fishing for himself and his neighbors -- including town and city neighbors to whom he may grant these privileges.

To the business man, conservation means more trade, more out-of-state visitors, and better business generally, because the restoration of wild-life goes hand in hand with the restoration of lands and waters.

HILL:

That's good; that's surely good enough. If it works in other states it will work in Missouri -- with our many streams and different types of land, varying from open prairie to the Ozark forests. But it sounds like a big job, Dr. Tucker.

TUCKER:

Yes, Bob, it is -- including enforcement, propagation, forestry, public information, and scientific research. We have nothing to do with enforcement, very little with propagation, and you will hear about forestry in a few minutes. As for public information, we prepare bulletins, answer inquiries, and work through the Extension Service, the youth groups, and in other ways. But our first responsibility is scientific research. In fact, the state university is the only place in Missouri where wildlife research can be done on a large scale.

HILL:

How is that?

TUCKER:

Because wildlife conservation is a broad subject; it brings in not merely biology, but all sorts of subjects that affect the use of the land -- agriculture, forestry, geology, and so on. There is only one institution in Missouri where the necessary library and laboratory facilities and trained workers in all these fields are gathered together in one place.

HILL:

How is the plan working out?

TUCKER:

Ever since the Missouri Game Survey in 1934 and 1935, initiated by the State Game and Fish Department, conducted by two University staff members, and financed by the National Park Service, there has been a steady increase of wildlife work here. At present, ten different departments of the University are actively at work on wildlife problems.

HILL:

That's great. What's being done out on the farms?

TUCKER:

Well, in 89 Missouri counties this past year, more than 5,000 boys and girls were enrolled in 4-H clubs for the purpose of studying wildlife and improving the wildlife resources.

HILL:

Say, it's good to hear that. And maybe you'll be glad to know that the State Conservation Federation with members all over Missouri is backing the University in this work.

TUCKER:

We know that Bob, and we are happy that it is true. And fortunately we have the finest sort of cooperation from the State Conservation Commission, the U. S. Forest Service, the Farm Security Administration, the Soil Conservation Service, the Biological Survey, and other powerful agencies. The work is well on its way and we feel sure that the people of Missouri will not be disappointed in its long-time results.

ANNOUNCER:

Thank you, Mr. Tucker and Mr. Hill. And now the University Cadet Band playing Sabre and Spurs, by Sousa.

BAND: SABRE AND SPURS.

ANNOUNCER:

You have just heard the University of Missouri Band playing Sousa's stirring march, Sabre and Spurs, as a part of the Land Grant College program coming to you from the Missouri campus.

A moment ago we were told how the people of Missouri are rallying in great numbers to protect their farm lands from erosion. That, however, is only part of their problem. Missouri is a big state, stretching 650 miles from its north-western cornfields and feedlots to the plantations and cotton gins of its south-eastern delta. Forty-four million acres, nearly three-fourths of which were originally covered with forests.

We bring to the microphone at this time Ralph Peck, professor of forestry at the University, to tell you what Missouri is doing with her trees. What about it, Mr. Peck?

PECK:

I must say, first of all, Mr. Mitchell, that in forestry Missouri ranks high only in the extent of her forest lands. We are hopeful, however, as to future possibilities.

Today we have in forests - of a sort - about half of the 31 million acres that once were well timbered. The people of Missouri are in earnest about this business of forestry. There can be no doubt of that since they voted a constitutional amendment by a majority of 2 1/2 to 1 - the greatest in Missouri's history - establishing a state commission to administer conservation, including forestry.

ANNOUNCER:

That was in 1936, I believe, and this State Commission cooperates with the University?

PECK:

That's right; and with the United States Forest Service. Together these two great agencies -- the state and federal- are giving the University every possible assistance.

No better demonstration of the value of good forestry practice can be found than in the National Forests in the Ozark Region of Missouri. At present there are eight of these areas containing more than three million acres within which the federal government is authorized to purchase, improve and manage neglected forest lands that may be offered for sale by private owners.

The amount of land now owned by the federal government within these authorized areas is already well over a million acres.

ANNOUNCER:

Well, I'd say, Mr. Peck, there must be a lot of people in your state who are interested in forestry.

PECK:

That's easily explained, Mr. Mitchell. Besides yielding valuable crops of trees, forests are essential to regulated stream flow and flood control. Holding the rainfall on hill lands will reduce silting of waterways and lessen the danger of floods.

ANNOUNCER:

But, Mr. Peck, did I hear you refer to trees as a crop?

PECK: That's right. Farm forestry, in which trees are so regarded is probably the most interesting phase of our work. Missouri ranks fourth among the states in farm woodland area, having nine million acres of such land and being exceeded in this respect only by Texas, Georgia, and North Carolina.

The Extension Service is carrying on an educational program to protect farm woodlands from misuse through burning or overgrazing, and to help farmers reforest fields formerly cultivated but now so seriously depleted by erosion that they can no longer be called agricultural land. Good forest practice would use such land in raising crops of posts, fuelwood, rough lumber, game animals, and birds.

ANNOUNCER:

To what extent are Missouri farmers actually planting new forest cover or properly managing farm woodlands?

PECK:

During the last two years Missouri farmers have placed orders for more forest seedlings than could be supplied -- but planted all they could get. This year the State Conservation Commission aided by the U. S.

Forest Service, has agreed to double the number of young trees to be made available for distribution to farmers through the Agricultural Extension Service.

Another important phase of forest conservation is carried on through organized instruction of boys and girls in 4-H clubs. During the last three years 8,400 Missouri boys and girls have been enrolled in forestry clubs and have planted one-third of a million trees.

Certainly there is every indication that the people of Missouri are keenly interested in good forest management. But I see my time is up. Thank you.

ANNOUNCER:

And we thank you, Mr. Peck. Now I am told that the University enjoys to a marked degree the confidence of the farm people of the State, and that nearly 200,000 farm families in this state last year made beneficial changes in farm and home practices as a result of instruction received from the Extension Service. That's two-thirds of all the farm families of Missouri.

Imagine, if you can, a classroom 650 miles from corner to corner, occupying all the floor space from Iowa to Arkansas, from Illinois to Oklahoma, from Kentucky to Kansas, and from Tennessee to Nebraska.

And now, we salute this great classroom with the University Band playing The Stars and Stripes Forever, by Sousa.

BAND: THE STARS AND STRIPES FOREVER.

ANNOUNCER:

And now we present to you the man whose privilege it has been for thirty-five years to teach in a 44-million acre classroom, the Dean and Director of the Missouri College of Agriculture, Dr. M. F. Miller.

DEAN MILLER:

I am most happy to meet the listeners at this broadcast, and I am glad that Mr. Mitchell has mentioned the farm people of Missouri. Each succeeding year spent in this work has impressed me more and more with the realization that in the farm homes are to be found our most important opportunities for conservation.

There is a type of culture possessed by the real farmer which no technical training can give. The appreciation of natural phenomena makes him one with growing things. This is true culture and this he profoundly enjoys. The older an agricultural people becomes, so long as a satisfactory type of agriculture is followed, the more is beauty appreciated and the things of the spirit enjoyed.

It is certainly no mere accident that the man who deals with the soil and living things, who lives in the open and who must adjust himself to the exigencies of the weather, develops an individuality, a type of sincerity and usually a rugged honesty that can scarcely be duplicated elsewhere.



Unless we foster this spiritual culture, we cannot hope to save our material resources. We shall scarcely be able to pay the ultimate price of conservation until we regard the soil with love and reverence, realizing that into this thin layer atop the earth's crust have fallen countless generations of plants and animals to become a storehouse from which the farmer garners his crops and from which with proper conservation, these same forms of life spring up again, a perpetual benefaction from the Creator. Soil conservation and human conservation go together. It is on such fundamental principles that a satisfactory rural civilization is founded.

ANNOUNCER:

You have just heard a brief statement from Dean M. F. Miller of the College of Agriculture, as a part of the Land Grant broadcast from the campus of the University of Missouri.

And now, may I introduce Dr. C. E. Lively, rural sociologist of the University staff to give us some of the latest reports from the farm homes of Missouri. Will you do that for us, Dr. Lively?

LIVELY:

I will, Mr. Mitchell, and first comes the report that more than 27,000 Missouri farm boys and girls were members of 4-H clubs during the past year. That is two and one-half times as many as there were in this work three years ago.

ANNOUNCER:

That number of young people between 10 and 21 years of age would keep a great many teachers busy, I should think. Just how can the Extension Service supervise the work of so large a number?

LIVELY:

Only through trained, volunteer leaders -- more than 4,600 men and women and older club members. These leaders are trained by extension specialists from the University. They, in turn, instruct the boys and girls with the aid of resident county agents and home demonstration agents.

ANNOUNCER:

But what have such clubs to do with conservation?

LIVELY:

Much. The first purpose of the 4-H club is the improvement of farm, home, and community practices. These ends are secured by using actual life situations on the farm and in the home, school, and community. To the children these experiences are interesting and vital, bringing them in touch with the best in rural life. As a result they make of themselves more efficient, more co-operative, and more useful citizens.

ANNOUNCER:

Splendid! That surely is conserving the State's best crop. And the parents; I suppose they have still other community interests besides the 4-H clubs?



LIVELY:

They certainly do. The farm women have clubs of their own. These are known as Extension Clubs; there are 2,000 of them with a total active membership of 38,000 homemakers. Some of these clubs have been in continuous existence for more than a quarter of a century. In Cape Girardeau and Pettis counties, these clubs assisted in making possible the employment of Missouri's first "farm advisers" or county agents. That was back in 1912.....(FADE OUT SPEECH).

PRESIDING JUDGE:

Gentlemen of the Pettis County Court, this business of a farm adviser has bobbed up again. This time it's the women who are asking for it. Mrs. Harry Sneed is here with about two dozen other women -- citizens of this county. Will you state your case Mrs. Sneed?

MRS. SNEED:

Gentlemen of the County Court, we are farm homemakers-- members of homemakers clubs from different parts of the county. We represent at least a hundred families who want a farm adviser. We want to take advantage of the better ways of doing things worked out at Columbia and at Washington, but we are so far away...and, gentlemen, we need so much to learn these new things....(FADE OUT ON SPEECH)

LIVELY:

That was back in 1912 in Pettis county. And that same year a similar delegation in Cape Girardeau county made the same request. You can guess the result - Soon afterward the first farm advisers in Missouri went to work; C. M. McWilliams in Cape County and Sam Jordan in Pettis county.

ANNOUNCER:

And now, you say, these farm women's clubs have 38,000 members! They must give the University a lot of help.

LIVELY:

Help such as no one else can give. These clubs tackle any and every task that needs to be done in their communities--from organizing health clinics to building community centers.

Safeguarding the health of the community is a major project. One club in a community remote from both medical service and telephone connections built 18 miles of telephone line to connect with the nearest exchange. Last year these clubs, with the help of local doctors and the State Board of Health, were responsible for the immunization and vaccination of nearly twenty thousand children.

Besides improving their own knowledge and skill as homemakers, these women spare no effort to help their neighbors in a similar endeavor. They protect health, foster church and Sunday school services, improve library facilities, build community centers, raise school standards, beautify home and public grounds, and do many other things that make the rural community a better place in which to live.

ANNOUNCER:

Leaving nothing whatever for the men to do?

LIVELY:

The men, too, are busy. They have their soil improvement associations, their land-use planning committees, their clover and prosperity organizations, their county extension boards, their Triple-A duties, and much more besides.

As a matter of fact, Missouri today presents a united front for conservation; the people of Missouri are fixing their eyes upon the goal which consists of a good life on the farm. Large groups of farm and home leaders in every one of the State's 114 counties are working toward this goal with a singleness of purpose that gives assurance of ultimate success.

Moreover there are 1,000 of the older sons and daughters of these people enrolled here at the University in the four-year courses in agriculture and home economics. And there are nearly 6,000 teen-age boys in vocational agriculture departments in Missouri high schools.

It is this steady increase in the number of well trained men and women who are lining up in support of high ideals of country life that should encourage every teacher in the State of Missouri to carry on. By steadily enlarging the educational opportunities of all the people of Missouri, the University and the many other important educational institutions of the state are performing a service that most assuredly will lead to wiser stewardship of our material and human resources.

ANNOUNCER:

And now the University Men's Glee Club singing, I Dream of Jeannie, by Foster.

GLEE CLUB: I Dream of Jeannie.

ANNOUNCER:

Now as our closing number, the University of Missouri Glee Club and the University Band will join together in the University song, Old Missouri.

GLEE CLUB AND BAND: Fading for final announcement.

###

